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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858.272	05/15/2001	William Charles Ulland	2970.95US01	2680
23552	7590	12/09/2003	EXAMINER	
MERCHANT & GOULD PC P.O. BOX 2903 MINNEAPOLIS, MN 55402-0903			ROSASCO, STEPHEN D	
			ART UNIT	PAPER NUMBER
			1756	

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/858,272	Applicant(s) ULLAND ET AL.	
	Examiner Stephen Rosasco	Art Unit 1756	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

In response to the applicant's response of 8/18/03, which included an affidavit swearing behind the filing date of the Piao reference, the examiner withdraws the prior office action rejection and includes a new rejection here over newly cited art.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Moore et al. (5,840,451) or Uytterhoeven et al. (5,607,813) or Uytterhoeven et al. (5,409,799).

The claimed invention is directed to: a device for controlled exposure of photoreactive compositions comprising a light emitting diode array and a control mechanism for regulating the light intensity; and to a method for exposing a photosensitive substrate, while using a light guide which is a fiber optic bundle. And wherein the diode array emission spectra is from 350-450.

Moore et al. teach a photolithographic system and a method of using a photolithographic system, comprising: providing individually controllable radiation sources; and

scanning the radiation sources relative to an image plane to form the image pattern on the image plane during fabrication of an integrated circuit device.

And wherein the radiation sources are selected from the group consisting of light pipes, light emitting diodes and laser diodes.

And wherein the radiation sources that are activated emit radiation selected from the group consisting of ultraviolet light and x-rays.

And wherein the image plane is provided by a photosensitive material on a wafer.

And wherein the radiation sources form the image pattern without using a reticle or a mask.

Uytterhoeven et al. '813 (col. 14, lines 41-54) teach the use of an imaging element in connection with the photoresist composition, which is preferably exposed to an image-wise distribution of actinic radiation to harden said photopolymerizable composition pattern-wise in correspondence to said image-wise distribution of actinic radiation. The exposure can be a contact exposure using e.g. ultraviolet radiation, a camera exposure, a scanning exposure, or a laser exposure. The radiation source used in carrying out the exposure step includes e.g. sunlight, incandescent lamps, mercury vapor lamps, halogen lamps, xenon lamps, fluorescent lamps, light-emitting diodes, lasers, electron rays, and X-rays.

Uytterhoeven et al. '799 (col. 4, lines 35-48) teach the method for obtaining an image where an imaging element is information-wise exposed to actinic radiation to harden the photopolymerizable composition pattern-wise in correspondence to the information-wise distribution of actinic radiation. The radiation source used in carrying out the exposure step includes e.g. sunlight, incandescent lamps, mercury vapour lamps, halogen lamps, xenon lamps, fluorescent lamps, light-emitting diodes, lasers, electron rays, and X-rays.

Although the teachings of Uytterhoeven et al. do not expressly define the wavelengths that are claimed by the applicant it would be considered inherent in the teachings of the reference that any wavelength that is available with an LED could be used for exposure.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Rosasco whose telephone number is (703) 308-4402.

Any inquiry of a general nature or relating to the status of this application should be directed to Fax (703) 872-9306.

A handwritten signature in black ink, appearing to read 'S. Rosasco', with a stylized, cursive script.

S. Rosasco
Primary Examiner
Art Unit 1756

S. Rosasco
12/1/03